

REMARKS/ARGUMENTS

1.) Claim Amendments

Claims 1-22 are pending in the application. The Applicants have amended claims 1-5, 10, 11, 13, 14, 19, 21, and 22. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Response to Arguments

On page 2 of the Office Action, the Examiner noted that the Applicant had argued in the previous response that Mitchell completely ignores the impact of the echo from the outgoing voice prompt. The Examiner stated that this limitation was not given patentable weight because the recitation occurs in the preamble of the claims. In response, this limitation has been moved from the preamble to the body of the independent claims.

On pages 2-3 of the Office Action, the Examiner noted that the Applicant had argued in the previous response that the invention differs from Mitchell and Bridges because it mathematically models the words of both the outgoing voice prompt and a set of command words that may be spoken by the user to barge in. The Examiner stated that these features are not recited in the rejected claims. The Examiner then acknowledged, however, that the claims do recite mathematically representing the words of the system voice prompt. These contradictory statements are quite confusing. The Applicant has amended the claims in an attempt to clarify for the Examiner that the "system voice prompt" and the "outgoing voice prompt" are one and the same. The Applicant has also clarified that the echo of the outgoing system voice prompt includes at least one word of the outgoing system voice prompt.

3.) Claim Rejections – 35 U.S.C. § 103(a)

On Page 4 of the Office Action, the Examiner rejected claims 1, 4, 6, 9, 11, 13, 15, 19, and 21 under 35 U.S.C. § 103(a) as being unpatentable over Mitchell et al.

(USPN 6,574,595) in view of Comerford, et al. (USPN 6,107,935). The clarifying amendments noted above clearly distinguish the claimed invention from Mitchell and Comerford. The Examiner's consideration of the amended claims is respectfully requested.

As noted in the previous response, the Examiner confuses Mitchell's analysis of the user's barge-in speech with the Applicant's analysis of the system prompt. Mitchell does not teach or suggest modeling and analyzing the words of the outgoing system voice prompt.

Regarding claims 1, 11, and 19, the Examiner states that Mitchell discloses generating an acoustic model of the system voice prompt in column 3, lines 27-66. The Applicant respectfully disagrees. Mitchell only discloses modeling acoustic speech events and comparing the user's barge in speech with the modeled speech events.

The Examiner states that Mitchell discloses comparing the input signal to the acoustic prompt model into the acoustic target vocabulary model in column 3, lines 27-66. The Applicant respectfully disagrees. The "acoustic prompt model" is defined in the applicant's claims as mathematically representing the words of the outgoing system voice prompt. There is no disclosure or suggestion of this feature in Mitchell.

The Examiner states that Mitchell discloses determining which of the acoustic prompt model and the acoustic target vocabulary model provides a best match for the input signal during the comparing step in column 3, lines 27-66. The Applicant respectfully disagrees. Since Mitchell does not compare the input signal to a mathematical model of the outgoing system was prompt, Mitchell cannot make this determination.

The Examiner further states that Mitchell does not specifically teach mathematically representing the words of the system voice prompt, but contends that Comerford discloses this feature in column 1, lines 30-51. The Applicant respectfully disagrees. Comerford compares the user's (speaker's) input speech with a speaker model. The input speech may be text-dependent or text-independent, but in either case there is no mathematical representation of the words of the outgoing system voice prompt, and no comparison is made between the input speech and a model of the outgoing system voice prompt. Comerford further discloses comparing the input speech

with models of cohorts (i.e., previously enrolled speakers who possess voice characteristics substantially similar to the user). Again, there is no disclosure or suggestion of a mathematical representation of the words of the outgoing system voice prompt, and no comparison is made between the input speech and a model of the outgoing system voice prompt.

Thus, the combination of Mitchell and Comerford does not teach or suggest all of the claimed limitations of independent claims 1, 10, and 19 and a prima facie case of obviousness has not been established. Therefore, the allowance of claims 1, 10, and 19 is respectfully requested.

On pages 6-7 of the Office Action, the Examiner rejected dependent claims 4, 6, 9, 13, 15, 18, and 21 as being shown by Mitchell. The applicant respectfully disagrees. These claims all recite additional details regarding the acoustic model of the outgoing system voice prompt and its use. Mitchell does not teach or suggest a model of the outgoing system voice prompt.

On page 8 of the Office Action, the Examiner rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Bridges (USPN 5,978,763) in view of Comerford. The Applicants contend that the clarifying amendments to claim 10 distinguish the claimed invention from Bridges and Comerford. The Examiner's consideration of the amended claims is respectfully requested.

Like Mitchell and Comerford, Bridges does not teach or suggest a model of the outgoing system voice prompt. Consequently, no comparison is made to such a model, and no determination is made as to whether the model of the outgoing system voice prompt or the model of the user-generated command words provides the best match. As noted in the previous response, Bridges's solution to the problems caused by the voice prompt echo is to establish a threshold for the recognition of voice commands based on the echo return loss. Voice commands must exceed the threshold to be recognized and acted upon. Bridges notes the disadvantage that some commands may not be recognized, but accepts this disadvantage because it is preferable to being too sensitive and stopping the voice prompt when the user did not barge in. (Col. 3, lines 8-24). This is entirely and totally different from what is recited in Applicant's claim 10.

Comerford does not overcome the shortcomings of Bridges because Comerford also fails to teach or suggest a model of the outgoing system voice prompt. Therefore, the allowance of claim 10 is respectfully requested.

On page 10 of the Office Action, the Examiner rejected claims 2-3 under 35 U.S.C. § 103(a) as being unpatentable over Mitchell in view of Comerford and in further view of Backfried et al. (USPN 6,801,893). As noted above, however, Mitchell and Comerford do not show the limitations which the Examiner contends. Backfried adds nothing to the combination. Claims 2-3 recite additional details regarding the acoustic model of the outgoing system voice prompt and its use. Backfried does not teach or suggest a model of the outgoing system voice prompt. Therefore, the allowance of claims 2-3 is respectfully requested.

On page 12 of the Office Action, the Examiner rejected claims 5, 14, and 22 under 35 U.S.C. § 103(a) as being unpatentable over Mitchell in view of Comerford, and in further view of Hardwick (PGPUB 2004/0093206). The Applicant respectfully disagrees. Once again, Mitchell and Comerford do not show the limitations which the Examiner contends. The Examiner asserts that Hardwick discloses in paragraph 0080 the step of generating an acoustic prompt model at an attenuation level of approximately 20 dB relative to the system voice prompt. This is incorrect. Hardwick discloses a multiband excitation (MBE) vocoder that attenuates non-zero harmonics 20 dB, but has nothing to do with generating an acoustic prompt model at an attenuation level of approximately 20 dB relative to a system voice prompt. Claims 5, 14, and 22 recite additional details regarding the generation of the acoustic model of the outgoing system voice prompt and its use. Hardwick does not teach or suggest a model of the outgoing system voice prompt. Therefore, the allowance of claims 5, 14, and 22 is respectfully requested.

On page 13 of the Office Action, the Examiner rejected claims 7-8 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Mitchell in view of Comerford, and in further view of Bridges. The Applicant respectfully disagrees. As noted above, none of these references teach or suggest a model of the outgoing system voice prompt, or comparing such a model against an incoming signal. Therefore, the allowance of claims 7-8 and 16-17 is respectfully requested.

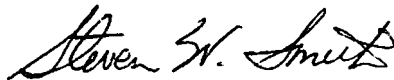
On page 15 of the Office Action, the Examiner rejected claims 12 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Mitchell in view of Comerford, and in further view of Helbing (PGPUB 2005/0038659). The Applicant respectfully disagrees. Once again, Mitchell and Comerford do not show the limitations which the Examiner contends. The Examiner asserts that Helbing discloses in paragraph 0004, means for generating an acoustic prompt model from a known text. This is incorrect. Helbing merely discloses how to generate the outgoing system prompt from a known text. There is no teaching or suggestion of an acoustic prompt model as defined in the Applicant's claims. Claims 12 and 20 recite additional details regarding the generation of the acoustic model of the outgoing system voice prompt. Therefore, the allowance of claims 12 and 20 is respectfully requested.

4.) Conclusion

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1-22.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would expedite the prosecution of the Application.

Respectfully submitted,



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